(5) In a cableway that has an A-60 fire rating.

[CGD 94–108, 61 FR 28280, June 4, 1996, as amended by USCG–2003–16630, 73 FR 65198, Oct. 31, 2008; USCG–2013–0671, 78 FR 60153, Sept. 30, 2013]

## §111.60-3 Cable application.

- (a)(1) Cable constructed according to IEEE 1580 must meet the provisions for cable application of section 24 of IEEE 45–2002 (both incorporated by reference; see 46 CFR 110.10–1).
- (2) Cable constructed according to IEC 60092-353 or UL 1309 (both incorporated by reference; see 46 CFR 110.10-1) must meet section 24 of IEEE 45-2002, except 24.6.1, 24.6.7, and 24.8.
- (3) Cable constructed according to IEC 60092-353 must be applied in accordance with IEC 60092-352 (incorporated by reference; see 46 CFR 110.10-1), Table 1, for ampacity values.
- (b)(1) Cable constructed according to IEEE 1580 must be applied in accordance with Table 25, Note 6, of IEEE 45–2002.
- (2) Cable constructed according to IEC 60092-353 must be derated according to IEC 60092-352, clause 8.
- (3) Cable constructed according to NPFC MIL-C-24640A or NPFC MIL-C-24643A must be derated according to NAVSEA MIL-HDBK-299 (SH) (all three standards incorporated by reference; see 46 CFR 110.10-1).
- (c) Cable for special applications defined in section 24 of IEEE 45–2002 must meet the provisions of that section.

[USCG-2003-16630, 73 FR 65198, Oct. 31, 2008, as amended by USCG-2013-0671, 78 FR 60153, Sept. 30, 2013]

## § 111.60-4 Minimum cable conductor size.

Each cable conductor must be #18 AWG (0.82 mm<sup>2</sup>) or larger except—

- (a) Each power and lighting cable conductor must be #14 AWG (2.10 mm<sup>2</sup>) or larger; and
- (b) Each thermocouple, pyrometer, or instrumentation cable conductor must be #22 AWG (0.33 mm<sup>2</sup>) or larger.

[CGD 94-108, 61 FR 28280, June 4, 1996]

## §111.60-5 Cable installation.

- (a) Each cable installation must meet—
- (1) Sections 25, except 25.11, of IEEE 45-2002 (incorporated by reference; see 46 CFR 110.10-1); or
- (2) Cables manufactured to IEC 60092–353 must be installed in accordance with IEC 60092–352 (both incorporated by reference; see 46 CFR 110.10–1), including clause 8.
- (b) Each cable installation made in accordance with clause 8 of IEC 60092–352 must utilize the conductor ampacity values of Table I of IEC 60092–352.
- (c) No cable may be located in any tank unless—
- (1) The purpose of the cable is to supply equipment or instruments especially designed for and compatible with service in the tank and whose function requires the installation of the cable in the tank;
- (2) The cable is either compatible with the liquid or gas in the tank or protected by an enclosure; and
- (3) Neither braided cable armor nor cable metallic sheath is used as the grounding conductor.
- (d) Braided cable armor or cable metallic sheath must not be used as the grounding conductor.

[CGD 74–125A, 47 FR 15236, Apr. 8, 1982, as amended by CGD 94–108, 61 FR 28280, June 4, 1996; USCG–2003–16630, 73 FR 65198, Oct. 31, 2008; USCG–2013–0671, 78 FR 60153, Sept. 30, 20131

## $\S 111.60-6$ Fiber optic cable.

Each fiber optic cable must-

- (a) Be constructed to pass the flammability test contained in IEEE 1202, test VW-1 of UL 1581, or Category A of IEC 60332-3-22 (all three standards incorporated by reference; see 46 CFR 110.10-1); or
- (b) Be installed in accordance with  $\S 111.60-2$ .

[CGD 94–108, 61 FR 28280, June 4, 1996, as amended by USCG–2003–16630, 73 FR 65198, Oct.  $31,\,2008$ ]